



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Omar Messlem et al.

Application No.: 09/890,951

Filed: August 8, 2001

For: METHOD FOR DETECTING

PORTABLE OBJECTS AND SYSTEM
FOR CARRYING OUT SAID
METHOD

METHOD

Croup Art Unit: 2635

Examiner: Scott D. Au

Confirmation No.: 9531

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**Technology Center 2600** 

## REQUEST FOR RECONSIDERATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated March 29, 2004, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

Claims 9-13 were rejected under the second paragraph of 35 U.S.C. § 112, on the grounds that they were considered to be indefinite. With respect to claim 9, the Office Action states that the phrase "the type" renders the claim indefinite, contending that it is unclear whether the subject matter following the phrase is part of the claimed invention. In relevant part, claim 9 recites a reception means that receives response signals "in the form of distinct signals for each antenna or a resulting signal in accordance with the type of connection established between the transmission and reception means of the management unit and the antennae." Thus, the claim recites that the response signals can be in one of

two forms, namely distinct signals for each antenna, or a resulting, i.e. composite, signal. Whether the response signals are in one form or the other is dependent upon the type of connection between the reception means and the antennae. With reference to the disclosure, for example, Figure 3 illustrates an embodiment in which the response signals are distinct for each antenna, by virtue of the individual connections of the antennae to the discrimination device D. In contrast, Figures 4 and 5 illustrate embodiments in which a composite signal is received at the management system TG, since all of the antennae are connected to a common input port I.

It is respectfully submitted that the language of claim 9 is definite, because the recitation following the phrase "the type" is a positive recitation of the factor which determines whether the response signals are in one form or the other. Reconsideration and withdrawal of this ground of rejection is therefore respectfully requested.

With respect to claim 11, the Office Action states that the phrase "transmission type" renders the claim indefinite "because it is unclear whether the limitation(s) following the phrase are part of the claimed invention." However, the phrase "transmission type" appears at the end of claim 11; there are no limitations following this phrase. Thus, the basis for the rejection is unclear.

It is noted that each of the two grounds of rejection refer to MPEP §2173.05(d). This portion of the Manual relates to the use of exemplary language in the claims, i.e. "for example" and "such as." In claims 9 and 11 of the present application, the word "type" is not being used in an exemplary fashion. Rather, it is being used in a positive manner to specify the subject matter being claimed. It is respectfully submitted that a person of ordinary skill in the art can readily understand the scope of the claimed subject matter.

Accordingly, it is respectfully submitted that claims 9-13 comply with the requirements of the second paragraph of 35 U.S.C. § 112.

Claims 1, 4, 5, 9, 11-13 and 15 were rejected under 35 U.S.C. § 102, on the grounds that they were considered to be unpatentable over the Lastinger et al. patent (U.S. Patent No. 6,621,410). The other pending claims were rejected under 35 U.S.C. § 103, as being unpatentable over the Lastinger patent in view of various secondary references. It is respectfully submitted that the Lastinger patent neither anticipates, nor otherwise suggests, the subject matter of the rejected claims.

Generally speaking, the present invention is directed to a system of detecting portable objects, such as contactless smart cards or electronic labels, by using a network of multiple antennae. In the past, systems of this type operated by sequentially polling each of the antennae, to determine whether a portable object was in the vicinity of any one or more of them. A limitation associated with this approach is the fact that a finite amount of time is required to poll each antenna. Consequently, the number of antennae in the system was a factor in the time required to poll the entire network. As the size of the system is scaled upwardly to include more antennae, the responsiveness decreases.

To overcome this problem, the claimed invention employs a different approach, in which a signal is simultaneously transmitted to all the antennae. As a result, each antenna that detects a portable object sends back a response at approximately the same time. The individual portable objects are then successively selected from the received responses, in accordance with a pre-established sequence.

It is respectfully submitted that the Lastinger patent does not anticipate, or otherwise suggest, this subject matter. The rejection of claim 1 alleges that the Lastinger patent

discloses the transmission of signals simultaneously to all antennae, with reference to column 8, lines 60-61. However, this portion of the patent does not identify how the antennae are operated. Rather, it states that a *responder*, i.e. the portable object, is within a detection range of both grid antennas 232 and 234. The fact that a single portable object may be within the range of multiple antennas does not mean that both antennas receive a signal simultaneously.

In fact, the Lastinger patent teaches just the opposite. In the sentence bridging columns 19 and 20, the patent states that "a subroutine is called repeatedly to acquire each possible or expected response for each antenna field pattern that corresponds to a different location within the set of locations being monitored by the system." The statement that the subroutine is *repeatedly* called for *each* antenna field pattern suggests that the antennae are individually polled. The patent does not state that all of the antennae are simultaneously sent the same signal.

In the rejection of claim 9, the Office Action refers to the Lastinger patent at column 8, lines 8-27, in connection with the recitation of sending signals simultaneously to all the antennae. In relevant part, this paragraph of the patent states "The same or different antennas may be used for transmitting and receiving concurrently or in sequence (e.g., with suitable squelching)." Again, it is respectfully submitted that this statement does not suggest the concept of sending a signal simultaneously to all the antennae. Rather, it states that concurrent transmission and reception can be carried out with the same antenna, i.e. a single antennae both transmits a signal and receives a signal at the same time, or with different antennas, i.e. one antenna transmits while the other is receiving. There is no disclosure of sending a signal to all of the antennas simultaneously.

In addition to this fundamental distinction between the claimed subject matter and the disclosure of the Lastinger patent, other specific features of the invention are likewise not suggested by the references. For instance, claim 3 recites that the resulting signal from the antennae is obtained by the reception of response signals respectively at an input port assigned to each antenna. In connection with this claimed subject matter, the Office Action refers to the Dukes et al. reference (EP 0 543 500), at column 4, lines 21-40. It is respectfully submitted, however, that this portion of the reference does not disclose the reception of response signals from antennae at respective input ports that are assigned to each antenna. Rather, it states that the signals from all of the antennas are added together "by virtue of their being transmitted to console 10 *on the same cable....*" (emphasis added). In other words, the reference suggests that all of the antenna signals are being received at a common input port, rather than respective input ports that are assigned to each antenna. For this additional reason, therefore, it is respectfully submitted that the subject matter of claim 3, as well as the claims which depend from it, is not taught by the cited reference.

In view of the foregoing, it is respectfully submitted that all pending claims meet the requirements of 35 U.S.C. § 112, and are patentably distinct from the cited references.

Reconsideration and withdrawal of the rejections are therefore respectfully requested.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: June 29, 2004

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Title: METHOD FOR DETECTING PORTABLE OBJECTS AND SYSTEM FOR CARRYING OUT SAID

**METHOD** 

## **AMENDMENT/REPLY TRANSMITTAL LETTER**

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

**Technology Center 2600** 

Sir:	186111010gy Oction 2001					
Enc	losed is a reply for the above-identified patent application.					
A Petition for Extension of Time is also enclosed.						
	Terminal Disclaimer(s) and the \$\infty\$\$ \$55.00 (2814) \$\infty\$\$ \$110.00 (1814) fee per Disclaimer due under 37 C.F.R. § 1.20(d) are also enclosed.					
	Also enclosed is/are					
	Small entity status is hereby claimed.					
	Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the   ☐ \$385.00 (2801) ☐ \$770.00 (1801) fee due under 37 C.F.R. § 1.17(e).					
	Applicant(s) requests that any previously unentered after final amendments <u>not</u> be entered. Continued examination is requested based on the enclosed documents identified above.					
	Applicant(s) previously submitted					
	on					
	for which continued examination is requested.					
	Applicant(s) requests suspension of action by the Office until at least, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.					
	A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (1809/2809) is also enclosed.					

Attor y Docket No.	032326-157
Application I	No. 09/890 951

×	No additional claim fee is required.
	An additional claim fee is required, and is calculated as shown below.

AMENDED CLAIMS						
	No. of Claims	Highest of Clair Previous Paid Fo	ns sly	Extra Claims	Rate	Additional Fee
Total Claims	15	MINUS 2	20 =	0	x \$18.00 (1202) =	\$ 0.00
Independent Claims	2	MINUS	3 =	0	x \$86.00 (1201) =	\$ 0.00
If Amendment adds m	nultiple depen	dent claims,	add \$	S290.00 (1203)		
Total Claim Amendment Fee					\$ 0.00	
Small Entity Status claimed - subtract 50% of Total Claim Amendment Fee				\$ 0.00		
TOTAL ADDITIONAL CLAIM FEE DUE FOR THIS AMENDMENT					\$ 0.00	

A check in the amount	of is enclosed for the fee due.
Charge	to Deposit Account No. 02-4800.
Charge	to credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

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P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620

Date: June 29, 2004

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